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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,172	09/21/2001	Chun-Hsiang Chiang	A1-082 US	4260

23683 7590 04/15/2003

MOLEX INCORPORATED
2222 WELLINGTON COURT
LISLE, IL 60532

EXAMINER
LEON, EDWIN A

ART UNIT	PAPER NUMBER
2833	

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/960,172	Applicant(s) CHIANG, CHUN-HSIANG
	Examiner Edwin A. León	Art Unit 2833

-- The MAILING DATE of this communication appears on th cover she t with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 17-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *23* is/are allowed.

6)☒ Claim(s) *1-15 and 17-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed February 17, 2003 in which Claims 1, 9, 12, 15 and 17-21 have been amended and new Claims 22-23 have been added, has been place of record in the file as Paper No. 7.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-15 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (U.S. Patent No. 6,039,611) in view of Yoshihito et al. (Japanese Publication No. 06-231836). With regard to Claims 1 and 21, Yang discloses an electrical connector for use with an electrical cable (7) having a plurality of wires (71), the electrical connector comprising: a connector body (1), the connector body (1) comprising a front side, a rear side, a cavity (between 12) within the connector body (1), a plurality of terminal passageways (where 11 is disposed), and a plurality of terminals (11) respectively received within the terminal passageways (where 11 is disposed), the

terminals (11) each having a tail (Fig. 3) extended out of one end of the connector body (1); and a wire management member (2,3), the wire management member (2,3) including a body portion (2) having an end face, the body portion (2) adapted to support the tail (Fig. 3) of each of the terminals (11) and at least one wire groove (21) for receiving on of the plurality of wires (71), the wire management member (2,3) comprising a projection rod (22) projecting from an end face of the body portion (2), the projection rod (22) being received within the connector body cavity (between 12). See Figs. 3-6.

However, Yang doesn't show the cavity between the front and rear sides and the tail of each of the terminals extending out of the rear side of the connector body.

Yoshihito et al. discloses an electrical connector comprising: a connector body (20), the connector body (20) comprising a front side, a rear side, a cavity (above 21) within the connector body (20) and between the front and rear sides, a plurality of terminal passageways (21,25), and a plurality of terminals (10) respectively received within the terminal passageways (21,25) and a wire management member (41), the wire management member (41) including a body portion (41) having an end face, the wire management member (41) comprising a projection rod (60) projecting from an end face of the body portion (41), the projection rod (60) being received within the connector body cavity (above 21). See Fig. 1.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Yang by including the cavity between the front and rear sides and the projection rod projecting from an end face of

the body portion, the projection rod being received within the connector body cavity as taught in Yoshihito et al. in order to secure the connector more effectively and protect the cable end form any external force.

With regard to Claim 2, Yang discloses the wire management member body portion (2) including a plurality of terminal grooves (21), the terminal grooves (21) being adapted to receive the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 3, Yang discloses the wire management member body portion (2) including a plurality of wire grooves (21), the wire grooves (21) adapted to receive the wires (71) of the cable for enabling the wires (71) of the cable (7) to be respectively electrically soldered to the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 4, Yang discloses the cavity (between 12) is contiguous with one of the plurality of terminal passageways (where 11 is disposed). See Figs. 3-6.

With regard to Claim 5, Yang discloses the wire management member (2,3) comprising a plurality of ribs (23) respectively disposed between two adjacent terminal grooves (21) above the elevation of the tail (Fig. 3) of the terminals (11). See Figs. 3-6.

With regard to Claim 6, Yang discloses the wire management member body portion (2) comprising a plurality of platforms (23), at least one of the platforms (23) comprising a plurality of terminal grooves (21) adapted to receive the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 7, Yang discloses at least one of the platforms (23) comprising a plurality of wire grooves (21) adapted to receive the wires (71) of the cable (7). See Figs. 3-6.

With regard to Claim 8, Yang discloses at least one of the platforms (23) including a plurality of ribs (23) respectively disposed between two adjacent terminal grooves (21) above the elevation of the tail (Fig. 3) of the terminals (11). See Figs. 3-6.

With regard to Claim 9, Yang discloses a cable assembly, the assembly comprising: a connector body (1), the connector body (1) comprising a front side, a rear side, a cavity (between 12), a plurality of terminal slots (where 11 is disposed), and a plurality of terminals (11) respectively mounted in the terminal slots (where 11 is disposed), the terminals (11) each having a tail (Fig. 3) extended out of a rear side of the connector body (1); a cable (7), the cable (7) comprising a plurality of wires (71) respectively electrically soldered to the tail (Fig. 3) of each of the terminals (11); and a wire management member (2,3), the wire management member (2,3) adapted to support the tail (Fig. 3) of each of the terminals (11), the wire management member (2,3) comprising a projection rod (22) projecting from an end face of the wire management member (2,3), the projection rod (22) being received within the connector body cavity (between 12). See Figs. 3-6.

However, Yang doesn't show the cavity between the front and rear sides and the tail of each of the terminals extending out of the rear side of the connector body.

Yoshihito et al. discloses an electrical connector comprising: a connector body (20), the connector body (20) comprising a front side, a rear side, a cavity (above 21)

within the connector body (20) and between the front and rear sides, a plurality of terminal passageways (21,25), and a plurality of terminals (10) respectively received within the terminal passageways (21,25) and a wire management member (41), the wire management member (41) including a body portion (41) having an end face, the wire management member (41) comprising a projection rod (60) projecting from an end face of the body portion (41), the projection rod (60) being received within the connector body cavity (above 21). See Fig. 1.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Yang by including the cavity between the front and rear sides and the projection rod projecting from an end face of the body portion, the projection rod being received within the connector body cavity as taught in Yoshihito et al. in order to secure the connector more effectively and protect the cable end form any external force.

With regard to Claim 10, Yang discloses the wire management member (2,3) including a plurality of terminal grooves (21), the terminal grooves (21) being adapted to receive the tail (Fig. 3) of each of the terminals (11), and wherein a plurality of ribs (25) are respectively disposed between two adjacent terminal grooves (21) above the elevation of the tail (Fig. 3) of the terminals (11). See Figs. 3-6.

With regard to Claim 11, Yang discloses the wire management member (2,3) including a plurality of wire grooves (21), the wire grooves (21) adapted to receive the wires (71) of the cable (7) for enabling the wires (71) of the cable (7) to be respectively electrically soldered to the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 12, Yang discloses the wire management member (2,3) body portion (2) comprising a plurality of platforms (23), each of the platforms (23) comprising a plurality of terminal grooves (21) adapted to receive the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 13, Yang discloses at least one of the platforms (23) comprising a plurality of wire grooves (21) adapted to receive the wires (71) of the cable (7). See Figs. 3-6.

With regard to Claim 14, Yang discloses at least one of the platforms (23) including a plurality of ribs (23) respectively disposed between two adjacent terminal grooves (21) above the elevation of the tail (Fig. 3) of the terminals (11). See Figs. 3-6.

With regard to Claim 15, Yang discloses a wire management member (2,3) for use with an electrical connector having a connector body (1), the connector body (1) comprising a front side, a rear side, a cavity (between 12), a plurality of terminal slots (where 11 is disposed), and a plurality of terminals (11) respectively mounted in the terminal slots (where 11 is disposed), the terminals (11) each having a tail (Fig. 3) extended out of a rear side of the connector body (1), the wire management member (2,3) comprising: a body portion (2), the body portion (2) including a plurality of terminal grooves (21), the terminal grooves (21) being adapted to receive the tail (Fig. 3) of each of the terminals (11); and a projection rod (22), the projection rod (22) projecting from an end of the body portion (2), the projection rod (22) being adapted to be received within the connector body cavity (between 12). See Figs. 3-6.

However, Yang doesn't show the cavity between the front and rear sides and the tail of each of the terminals extending out of the rear side of the connector body.

Yoshihito et al. discloses an electrical connector comprising: a connector body (20), the connector body (20) comprising a front side, a rear side, a cavity (above 21) within the connector body (20) and between the front and rear sides, a plurality of terminal passageways (21,25), and a plurality of terminals (10) respectively received within the terminal passageways (21,25) and a wire management member (41), the wire management member (41) including a body portion (41) having an end face, the wire management member (41) comprising a projection rod (60) projecting from an end face of the body portion (41), the projection rod (60) being received within the connector body cavity (above 21). See Fig. 1.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Yang by including the cavity between the front and rear sides and the projection rod projecting from an end face of the body portion, the projection rod being received within the connector body cavity as taught in Yoshihito et al. in order to secure the connector more effectively and protect the cable end form any external force.

With regard to Claim 17, Yang discloses the wire management member (2,3) body portion (2) includes a plurality of wire grooves (21), the wire grooves (21) adapted to receive the wires (71) of the cable (7) for enabling the wires (71) of the cable (7) to be respectively electrically soldered to the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 18, Yang discloses the wire management member (2,3) comprising a plurality of ribs (23) respectively disposed between two adjacent terminal grooves (21) above the elevation of the tail (Fig. 3) of the terminals (11). See Figs. 3-6.

With regard to Claim 19, Yang discloses the wire management member (2,3) body portion (2) comprising a plurality of platforms (23), at least one of the platforms (23) comprising a plurality of terminal grooves (21) adapted to receive the tail (Fig. 3) of each of the terminals (11). See Figs. 3-6.

With regard to Claim 20, Yang discloses at least one of the platforms (23) comprising a plurality of wire grooves (21) adapted to receive the wires (71) of the cable. See Figs. 3-6.

With regard to Claim 22, the combination of Yang and Yoshihito et al. disclose the claimed invention except for the cavity being provided below the plurality of terminal passageways.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the cavity below the plurality of terminal passageways, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Allowable Subject Matter

4. Claim 23 is allowed.

The references fail to teach, disclose, or suggest, either alone or in combination, the body portion having a first and second platforms adapted to support the first and second portions of the terminals, respectively and the first platform being provided to the rear side of the body portion and the second platform being provided proximate to the front side of the body portion wherein the front side of the body portion faces the rear side of the connector body.

Response to Arguments

5. Applicant's arguments filed February 17, 2003 have been fully considered but they are not persuasive. In response to Applicant's arguments regarding Claims 1, 9, 15 and 21 that the Yang reference doesn't show the cavity between the front and rear sides and the tail of each of the terminals extending out of the rear side of the connector body, Applicant is reminded that these limitations are newly presented. Still, it is the Examiner's opinion that one with ordinary skill in the art would change the cavity and the projection rod of Yang for the cavity between the front and rear sides and the projection rod projecting from an end face of the body portion, the projection rod being received within the connector body cavity as taught in Yoshihito et al. in order to secure the connector more effectively and protect the cable end form any external force. The combination of Yang and Yoshihito et al. would show the tail of each of the terminals extending out of the rear side of the connector body.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (703) 308-6253. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Edwin A. Leon
AU 2833

P. AUSTIN BRADLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

EAL
April 10, 2003